

C. J. WADDELL.  
Tap for Fluids.

No. 224,495.

Patented Feb. 10, 1880.

FIG. 1.

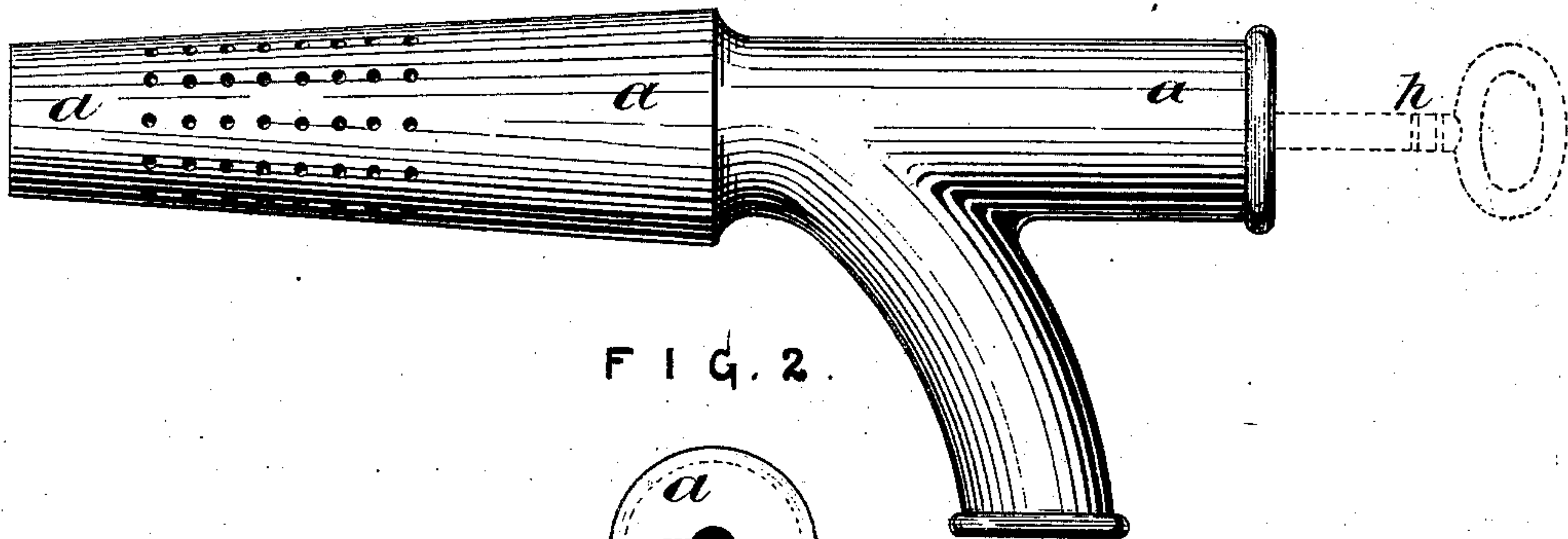


FIG. 2.

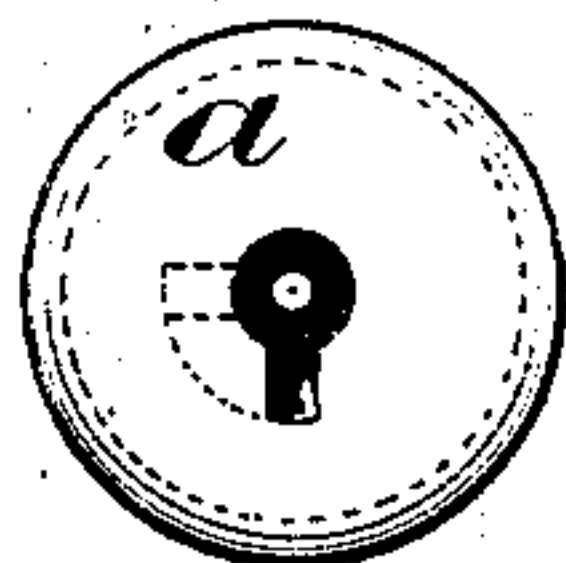


FIG. 3.

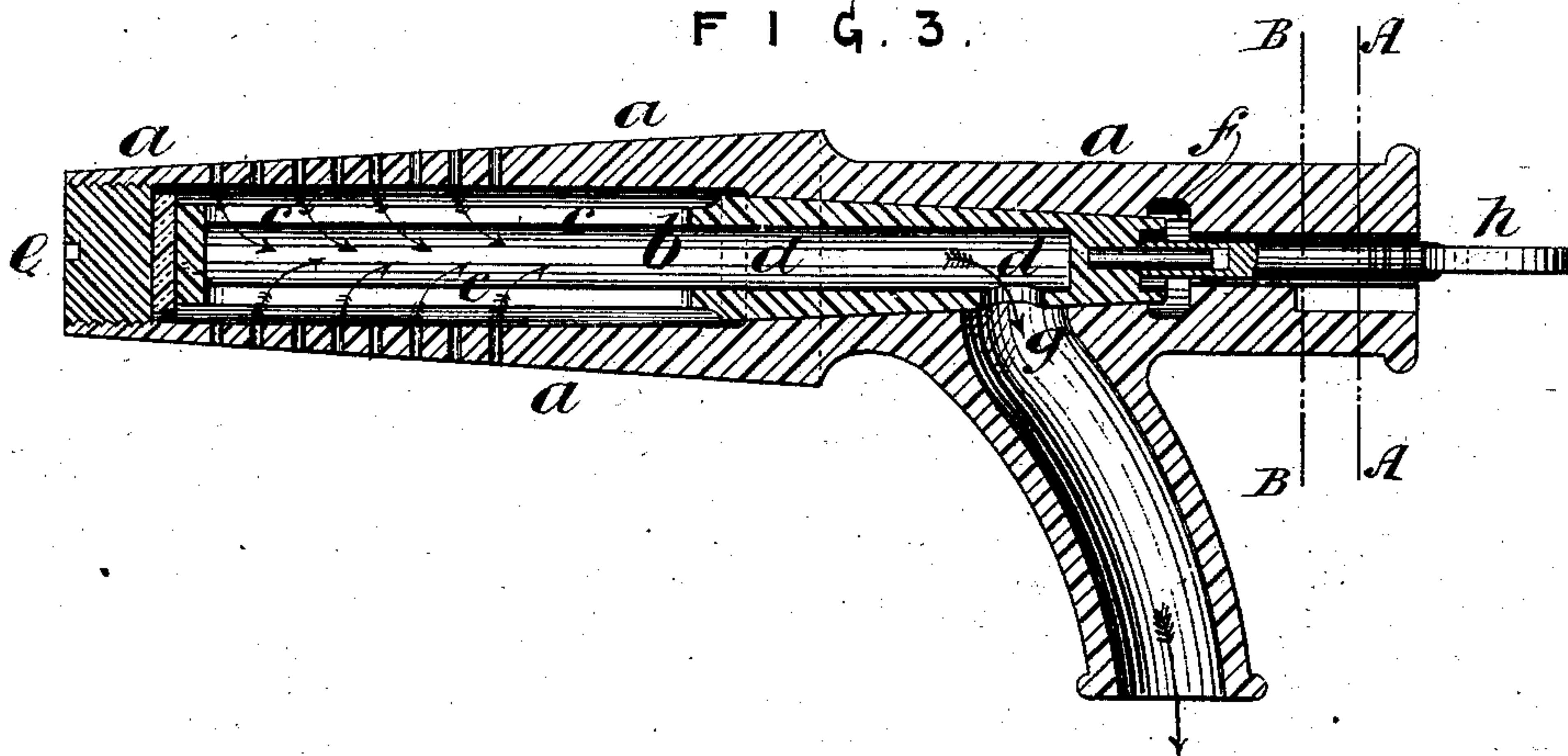


FIG. 4.

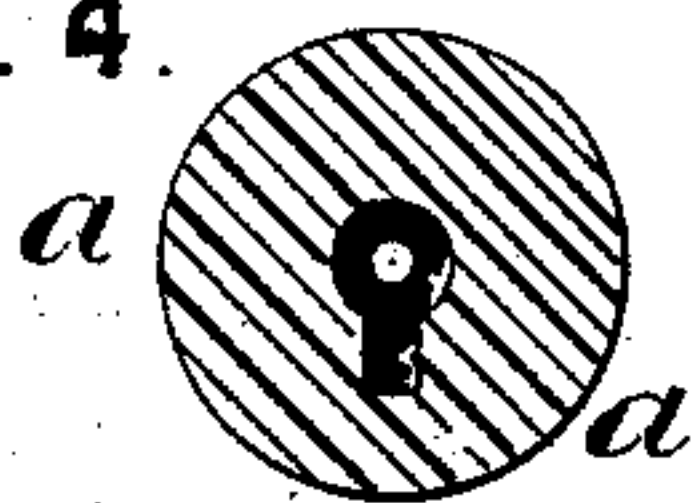


FIG. 5.

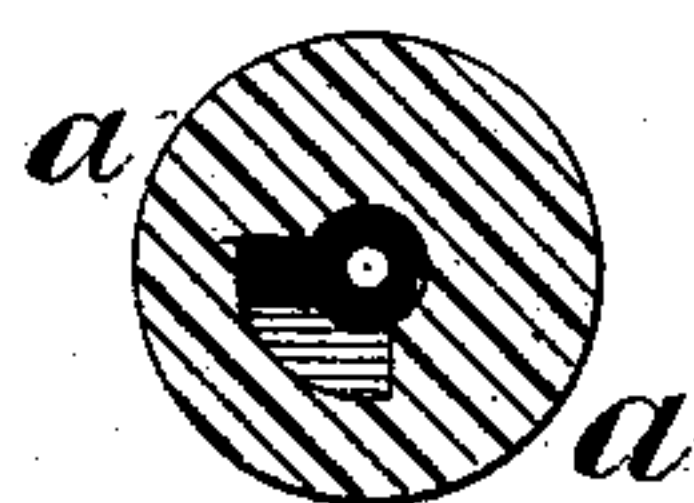


FIG. 6.

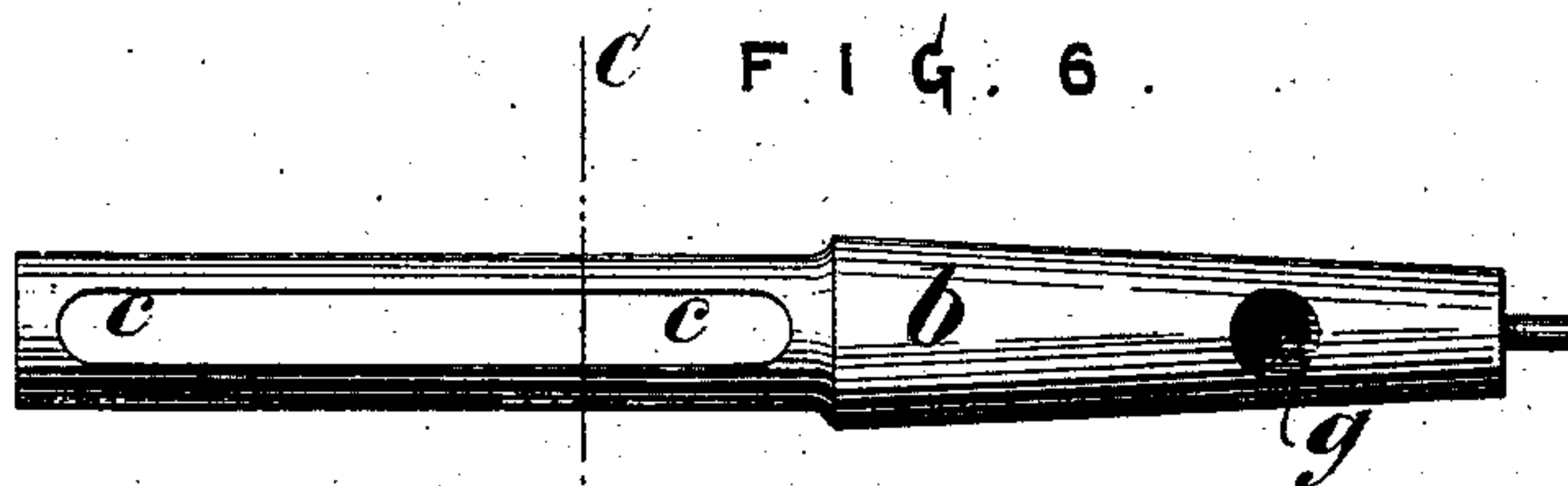


FIG. 7. FIG. 8.



*Henry Howson*  
*Harry Smith* } Witnesses

*Inventor*  
*Charles James Waddell*  
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# UNITED STATES PATENT OFFICE.

CHARLES JAMES WADDELL, OF MANCHESTER, GREAT BRITAIN.

## TAP FOR FLUIDS.

SPECIFICATION forming part of Letters Patent No. 224,495, dated February 10, 1880.

Application filed November 21, 1879.

*To all whom it may concern:*

Be it known that I, CHARLES JAMES WADDELL, of Manchester, county of Lancaster, in the Kingdom of Great Britain and Ireland, have invented a new and useful Improvement in Taps for Fluids, of which the following is a specification.

My invention, which relates to taps for drawing off fermented and other liquors from casks or other vessels, consists of a novel arrangement whereby such taps are less easily tampered with.

An example of a tap constructed in accordance with my invention is illustrated on the accompanying sheet of drawings, of which—

Figure 1 is an outside view of the tap; Fig. 2, a view of the front end. Fig. 3 is a vertical longitudinal section of the tap. Fig. 4 is a vertical cross-section at the line A, Fig. 3, while Fig. 5 is a similar section at the line B, Fig. 3. Fig. 6 is a separate view of the plug; and Figs. 7 and 8 are, respectively, an end view of the plug and a view in section at the line C, Fig. 6.

Referring to Fig. 3, *a* is the shell or body of the tap, and *b* is the plug. The said plug is conically formed, as is usual, and is provided with a shank, in which are cored or formed slots or openings *c*, which communicate with a passage, *d*, formed in the plug. The conical seating for the plug, formed in the body *a*, is arranged with its axis about in line with the main part of the body *a*, the smaller end of the core being to the front of the tap, as clearly indicated in Fig. 3. The core or passage in the conical part of the body *a* is made sufficiently large for the plug to be passed through the said core into position.

The plug is retained in position by means of a part, *e*, which is screwed into the end of the passage in the body *a*. A washer, of leather, cork, or other suitable material, is interposed between the end of the part *e* and the end of the shank of the plug, in order that the plug may be retained in position with a slightly elastic pressure. It will be seen that the plug is entirely inclosed within the body of the tap.

When the tap is in use access can only be

had to the end of the plug, which projects into a small chamber, *f*, formed in the front end of the body *a*. The said front end of the plug is suitably formed to be acted upon by means of a key. In the example the end of the plug is formed with a stump to suit a barrel-key and with a recess into which the bit of a key may enter.

It will be seen that the front end of the body *a* is formed with a bayonet-joint key-hole having a slot for the passage of the bit of the key *h*. When the key has been pushed in a short distance, as shown in dotted lines at Fig. 1, its farther entry is arrested in consequence of the inner part of the key-hole being, as it were, turned round to some extent, as indicated in Fig. 5. It is now necessary to rotate the key *h* to the extent of about a quarter-turn, when it may be pushed inward till it engages with the plug of the tap. The keyway may be formed to require the key to be turned less or more than is indicated. The key can only engage with the plug when the outflow-passage *g* is turned away from the bib of the tap, and as a consequence it is impossible to withdraw the key without closing the tap.

Wards may be applied to the keyway to render it more difficult to open the tap without the proper key.

That part of my invention which relates to the keyway is also applicable to taps having their plugs otherwise arranged than as indicated in the drawings.

Access cannot be had to the plug to loosen it in its seating while the tap is in use; but when it is withdrawn from the cask the part *e* can be unscrewed, and the parts be cleansed, or the tightness of the plug in its seating can be regulated.

The form of the tap renders it less liable to injury when being driven into the cask.

The barrel or seating into which the plug fits may be lined with cork or with any other suitable material if considered to be advisable.

I claim as my invention—

1. The combination of the shell of the tap, having a side outlet or bib, with the longitudinal plug *b*, having a corresponding out-



flow-opening, *g*, the screw in the inner end of the tap, and a key adapted to the outer end of the plug, all substantially as set forth.

2. The combination of the shell of the tap,  
5 having a side outlet or bib, with the hollow longitudinal plug having a corresponding opening, *g*, and having its front end adapted to receive a key, and the front end of the shell having a bayonet-joint keyway, constructed  
10 substantially as described.

In testimony whereof I have signed my name to this specification in the presence of two subscribing witnesses.

CHARLES JAMES WADDELL.

Witnesses:

EDWARD K. DUTTON,  
DAVID FULTON.